MANUAL FOR ADMINISTRATION OF THE SPEECH, LANGUAGE AND HEARING EXAMINATION

(for Forms PS-10 thru PS-17, inclusive, Rev. 4-64)

COLLABORATIVE STUDY OF CEREBRAL PALSY, MENTAL RETARDATION, AND OTHER NEUROLOGICAL AND SENSORY DISORDERS OF INFANCY AND CHILDHOOD

APRIL 1964

I. General Instructions

- A. Introduction: In the administration of the Speech, Language and Hearing Examination, it is important that the examiners follow instructions carefully to insure uniformity in testing procedures. Examiners should, therefore, make every attempt to get to know the instrument well before actually administering it to patients routinely. It is therefore recommended that they practice giving this examination until a smooth and natural sequence is achieved.
- B. Arrangement and Contents of the Examination: The Speech, Language and Hearing Examination is composed of a series of subtests. The major functions being tested, i.e., language reception, language expression, etc., are designated as areas and are referred to in this way in the specific instructions of this manual. Each of these areas may be composed of several subtests called subareas which may measure the function being tested by different means. Language reception, for example, is broken down into two subareas dealing with verbal comprehension for one, and alternate comprehension for the other; or an area such as auditory memory is broken down into two subareas dealing with the recall of digits and the recall of nonsense syllables. Each subarea is broken down into a number of items, under which are generally included several subitems. The subitems consist of the actual commands, questions, or procedures used by the examiner in testing the child. In all cases, wherever possible, the examination should be administered in the following sequence:
 - 1. Language Reception
 - 2. Language Expression
 - 3. Hearing Tests
 - 4. Speech Mechanism
 - 5. Speech Production
 - 6. Auditory Memory for Digits and Nonsense Syllables

Each subarea of the examination should be administered as a unit with specific emphasis placed on the function under test. For example, in testing hearing acuity with the spondee word list, the attention of the examiner should be directed to determining whether the utterances of the child are recognizable as the specific words on the tape, rather than judging how well the child articulates.

Although the recommended sequence for administration of the examination will be appropriate for the majority of cases, there are some instances in which it may be necessary to change it. For example, if upon initial presentation of the first series of subtests the examiner suspects that the child is suffering from a slight or possible severe hearing loss, it may be good procedure to administer the hearing tests first before testing the other functions. The examiner must note in the comments section any departure from the established sequence.

- C. General Scoring Procedure: Particular attention should be paid to the scoring procedures used in this examination. As a general rule, if the examiner has any doubt about whether the child has given a satisfactory response to a specific item, it is advisable that he mark the item as failed with notations made in the comments section of the scoring record. This step may provide important information for modification of the examination or resolution of some of the problems encountered with specific subtests or items.
- D. Guidelines to Employ in Testing Preschool Children:
 - 1. Make sure that the child is physically comfortable, i.e., he is seated in a comfortable chair and is able to manipulate any pictures or objects presented to him on a table suitable to his own sitting level.
 - 2. Never test if the child is in obvious distress. Delay testing until the child is comfortable.
 - 3. Generally exclude observers, although for children of this age it may be necessary to have the mother present. However, she should remain in the background and should not be allowed in any way to interfere with the performance of the child.
 - 4. A few toys (which are not similar to the test materials) may be used to aid the examiner in putting the child at ease. Before the formal examination begins, these toys should be removed from sight and reach.
 - 5. The examiner may indicate approval of the child and should avoid expressions of dissatisfaction.
 - 6. The testing room should be free from distractions and as free as possible from ambient noise.

- 7. The materials should be within easy reach of the examiner, although they should be hidden from the child.
- 8. The procedure and the specific instructions to the child should be memorized as part of an attempt to achieve standardized testing. However, it is advisable to keep the manual readily at hand for reference. All scoring should be done inconspicuously and all sections of each scoring record should be completed to avoid confusion and misinterpretation upon final analysis. It is also suggested that immediately following the examination, and given sufficient time, that examiners recheck each scoring record for completeness.
- 9. Under circumstances where the examiner has not been able to elicit a response from the child in either subareas of a major area and/or to specific items of a subarea, there is a tendency to score the subarea or item as "fail" and sometimes the area as "suspect" or "abnormal." The comments have not clearly differentiated the child whose performance has been elicited from the child whose cooperation has not been obtained. Clearly distinguishing these differences is necessary to enable more effective processing of data. It is recommended that when the cooperation of the child has not been obtained after all considered efforts to do so have not succeeded, the examiner should proceed as follows:
 - a. Do not score in "pass" or "fail" boxes.
 - b. <u>Document</u> <u>carefully</u> in the comments section the failure to cooperate or any other behavior explaining the lack of response.
 - c. On the Summary Sheet, PS-17, do not score an inadequate examination of any area (9-13) as "abnormal." Do not check any of the alternatives "normal," "suspect," or "abnormal." Instead, write an appropriate comment explaining that an adequate examination of the area was not accomplished and the reasons why.
 - d. However, if the examiner has succeeded in obtaining the child's cooperation in at least 4 of the 5 major areas (excluding Auditory Memory) of the examination, he may exercise his clinical judgment in estimating how the child would have performed on the remaining area, and evaluate him accordingly as "normal," "suspect," or "abnormal." This

practice may be accomplished only when an adequate Hearing Test has been accomplished. It should be emphasized that this procedure should be used rarely, only with extreme caution, and must be fully documented whenever used. This procedure cannot be employed for the Verbal Expression Area.

- 10. If the examiner is unable to obtain the child's cooperation or has not enough responses to make an adequate evaluation, he must make provisions to readminister this area or subarea during the same testing session at a point when the child is likely to be more cooperative. Avoid successive administration of the same area or subarea.
- 11. The examination should be administered in the sequence of the manual. However, under very unusual circumstances, departures from this sequence may be adopted if the examiner feels he can thereby obtain a more representative performance from the child.
- 12. Whenever there is any deviation from the manual in the administration or scoring of the examination, this must be justified in the form of detailed and pertinent explanations in the comment section. Unless careful documentation is furnished in this way, the coders in the Central Office will earmark such deviations as errors with consequent corruption of the data and lengthy delays in data processing. Grossly deviant records without explanation will be returned to the Collaborative Institution.
- 13. All records must be edited carefully and completely prior to transmission to the Central Office. This means that all scoring entries must be completed and special measures taken to insure that correct scoring criteria have been applied. This is especially important for such areas as Hearing and Speech Production where scoring criteria are more complex.
- 14. Copies of all examination records even though incomplete or inadequate should be forwarded to the Central Office.

II. Facilities

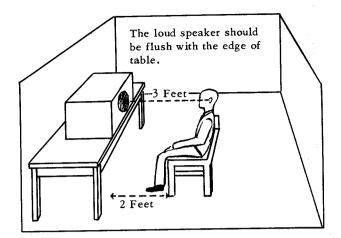
A. Specifications for Examination Room:

- 1. A quiet room away from the main sources of ambient noise is necessary.
- 2. The dimensions of the room should be at least 8' x 10'.

- 3. The ambient noise level within the room used for testing hearing should not exceed 40 db. on an ASA accepted sound level meter using the "B" scale.
- 4. If a sound-conditioned room is not available, the following suggestions for room selection and modification will provide additional sound control:
 - a. Choose a room away from pedestrian traffic in halls and removed from street traffic, isolated from other noises within the building by distance or by the presence of intervening room or closet.
 - b. Sound conditioning of the room will be improved by drapes, acoustic tile on ceilings and walls, carpeting, and by the use of storm windows if there is outside exposure.
 - c. All room air conditioners should be turned off during the tests of hearing.
- 5. The examiner should study the ambient noise level in the room over a period of hours to become familiar with the effect of temporary noises such as footsteps, motor noises, etc., on the sound level meter.
- 6. He should wait before presenting the auditory signal to the child if there is a passing increase in noise level.
- 7. Record the ambient noise level at the time of the hearing test in the appropriate place on the scoring form.

B. Furniture Selection and Placement:

- 1. An examination table should be used of sufficient width and length to accommodate placement of materials during test presentations.
- 2. Heights of table and chairs should be appropriate for three-year-old children.
- 3. For the hearing test, the loud speaker must be three feet from the ears of the child as he faces it. This distance must be strictly maintained for intensity levels to be kept at appropriate values.
- 4. The loud speaker should face the center of the room from a position close to a wall. It should be placed on a low table or shelf so that the center of the loud speaker is oriented perpendicular to and at the same height as the ears of the seated child.



- 5. Make a line on the floor two feet from and parallel to the face of the loud speaker. Make this line permanent with masking tape, paint, or other suitable means. For the hearing test, place the front legs of the child's chair on this line.
- 6. The tape recorder used in the hearing test should be placed on a shelf or table to one side, to avoid distracting the child. The examiner sits between child and tape recorder so that he is within easy reach of the child and the controls. If possible, the recorder should be out of the child's vision.
- 7. A table must be available to accommodate a pure tone audiometer. The examiner and child should face each other, but the child should not be permitted to see the manipulation of the controls.

III. Specific Instructions for Hearing Tests

- A. Introduction: The purpose of the hearing tests is to determine whether there are significant problems of auditory sensitivity. Two kinds of measurements are made to check this:
 - 1. Speech hearing for familiar spondaic words.
 - 2. Pure tone screening for the three critical speech frequencies.

Since reasonably normal hearing in at least one ear is necessary for the acquisition of language and speech, every effort must be made by the tester to determine whether or not the child can hear at soft levels. The examiner needs great skill in eliciting the child's interest and cooperation in listening intently because some children with normal hearing have difficulty in centering attention at soft levels. The tester also needs to be acutely aware of ambient noise levels. If there are disturbing bursts of interfering noises, he should wait before presenting a signal.

- B. Calibration of Equipment: Equipment must be calibrated before the child enters the test room as follows:
 - 1. Plug loud speaker into Wollensak Tape Recorder.
 - 2. Turn on tape recorder and allow it to warm up for approximately two minutes.
 - 3. Adjust tone control to Hi-Fi position.
 - 4. Play 1000 cycle calibrating tone with the switch on the loud speaker in the Hiposition. Increase the volume on the tape recorder until the needle on the loud speaker calibrating dial is at the line. This is meter setting Hi.
 - 5. Meter setting Lo is obtained by changing the switch on the loud speaker to Lo position. Do not change the volume on the tape recorder.
- C. Acoustic Values: Meter setting Hi is equivalent to 72 db. over one microbar at a distance of three feet as measured by an acoustic engineer with a general radio sound pressure level meter. This is equivalent to a moderate conversational voice (approximately 58 db., regarding normal speechhearing threshold).

When the switch is changed to the Lo setting, the output is reduced by 30 db. to the level of a very quiet voice (approximately 28 db., regarding normal speech-hearing threshold). This is called meter setting Lo.

- D. Description of Materials Recorded on Tape:
 - 1. For the verbal response test, there are four lists of familiar spondaic words. There is a five second interval between each word.

a. <u>List I</u> (Meter setting Hi)

- cowboy baseball hot dog
- b. <u>List II</u> (Meter setting Hi) doorbell

flashlight goldfish lipstick football sidewalk toothpaste oatmeal cupcake bathtub

c. <u>List III</u> (Meter setting Lo) mailman seesaw ice cream lipstick haircut toothbrush outside sailboat airplane birthday

d. List IV (Meter setting Lo)

popcorn icebox pancake pork chop ashtray ice cream toothbrush birthday hairbrush airport

2. For the picture pointing test (nonverbal response) there are four lists of familiar spondaic words. Three of the lists employ five different words and each word is used twice. They are recorded at seven second intervals. The limited number presents the child with a spread of six pictures which he can visually manage. The increased time interval allows time for the child to point to the appropriate picture.

- a. <u>List V</u> (Meter setting Hi) cowboy baseball hot dog
- b. List VI (Meter setting Hi)

bathtub ice cream seesaw redbird hairbrush ice cream redbird hairbrush seesaw bathtub

c. <u>List VII</u> (Meter setting Lo)

mailman bluebird toothbrush sailboat airplane sailboat airplane mailman toothbrush bluebird

d. <u>List VIII</u> (Meter setting Lo)

popgun goldfish necktie flashlight teaspoon teaspoon goldfish popgun flashlight necktie

IV. Miscellaneous Instructions

A. Alternative Testing: The remaining pages of this manual contain information about each of the areas and subareas. Each area of the examination, except in unusual cases, should be administered in the order in which it appears. It should be noted that there are areas in which alternative testing is provided. For example, in the language reception area there is both a verbal comprehension subarea and an alternate comprehension subarea. The instructions regarding these subareas indicate that only one subarea is to be used initially in testing the child. Thus, if the child can respond satisfactorily on the verbal comprehension subarea, it would not be necessary to administer the alternate comprehension subarea. The examiner may return to a subarea which the child did not attempt on first presentation.

- B. Summary of Test Performance and Additional Observations: A "Summary of Test Performance" (PS-17) and a series of items which have been labeled "Additional Observations" (PS-16) are included in the scoring record. The "Summary of Test Performance" is a condensed report for quick and ready reference regarding the child's level of performance on the major areas of the examination. The "Additional Observations" are to be filled out by the examiner to describe the state of health of the child on the day of the examination, and also permits the examiner to record any noticeable physical abnormalities or behavioral deviations.
- C. Summary of Areas and Subareas: Procedures for summary scoring of individual subareas are explained under the paragraph labeled "Scoring" at the end of each set of specific instructions for the subarea. Instructions for summary scoring of the total functional area, e.g., language reception, language expression, etc., are described in the last section of each area and are "boxed in" for ready identification.
- D. Comments Section: A comments section pertinent to each item has been included on the scoring record to enable the examiner to record any unusual occurrences, behavior, or actions of the child that he (the examiner) considers indicative of a possible disorder or pathological entity. The examiner should take such comments into account when filling out the summary scoring sheet at the end of the scoring record.

E. Age of Children For Testing:

- 1. It is desirable that the child be tested between the age range of two years, 11 months and three years, one month.
- 2. Under special circumstances, such as caseload and scheduling difficulties, the child may be tested as late as three years, two months of age. The record forms of any child tested after the age of three years, two months should nevertheless be transmitted to the Central Office.

- 3. It is recommended that testing of children beyond the age of three years, two months be initiated at the discretion of the supervisor of the speech, language and hearing section at the Collaborative Institution. Generally, testing after three years, four months of age should be done only if the child has been referred as impaired by another section of the Collaborative Institution.
- F. Instructions for Global Scoring: The following criteria are to be employed in evaluating the child's performance on the total examination:
 - Normal: Five major areas scored as normal.

Four major areas scored as normal and remaining major areas scored as suspect.

AREA: Language Reception (PS-10)

SUBAREA: Verbal Comprehension

Purpose: To determine whether the child has the ability to comprehend spoken commands and spoken questions as indicated by his responses. An alternative group of items has been provided for further testing of the child who fails to complete *all* of the items in this section successfully.

Materials Required for All Items: Small toy objects will be further specified in the items comprising this section of the examination.

Scoring: Scoring requirements are described for each item respectively.

Item 1: Identification of Familiar Objects

Purpose: To ascertain whether the child is able to form correct associations for a series of familiar objects.

Materials: Box without lid, car, man and flag.

Procedure: Place the toy objects on the table in a row, from the child's left to right, in the order shown above. Make sure that there is adequate spacing between the toy objects so that there is no doubt possible about which object the child points to on request. If the child then fails to respond, go on to each succeeding item. (If the child has a motor handicap involving the use of his hands or arms which prevents him from pointing, hold up two objects sufficiently apart to observe whether he looks at the one named. Repeat the procedure with all four objects. Be sure to use different pairs of objects chosen at random so that the child does not use a given object as a clue.) Regardless of which procedure is used, introduce each request in the order shown as follows:

- 1. "SHOW ME THE CAR."
- 2. "SHOW ME THE BOX."
- 3. "SHOW ME THE FLAG."
- 4. "SHOW ME THE MAN."

Scoring: The child must pass three of the four subitems in this group to be given a passing score. A pass score for each subitem should be given if the child points to, or picks up, the object corresponding to the word which designates it. A fail score is given when the child either points to, or picks up, the wrong object.

Item 2: Understanding Action Words

Purpose: To determine whether the child comprehends the meaning of common "action" words, as they relate to several well-known objects.

Materials: Box without lid, car, man and flag.

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- Suspect: Two or more suspect scores in the five major areas.
 - An abnormal score in any of the five major areas and any combination of suspect and normal in the remaining four major areas.
- Abnormal: Abnormal scores in two or more of the five major areas.
- G. Instructions for Determining Adequacy of the Examination: Adequacy means that the performance of the child has met the requirements to score pass or fail, normal, suspect or abnormal, according to the level of the examination. An examination is judged to be inadequate when any one of the following events occur:
 - 1. When the child's cooperation cannot be obtained.
 - 2. If there is inadequacy judged on any two of the five major areas of the examination (excluding Auditory Memory).

Procedure: Place the toy objects on the table in a row, from the child's left to right, in the above order allowing approximately two to three inches between objects. Introduce each of the following commands in the order they are shown below. Allow the child time to respond to the command. Repeat each command once if the child does not respond readily.

1. "PICK UP THE MAN."

2. "MAKE THE MAN JUMP."

3. "PUSH THE CAR."

4. "SHAKE THE BOX."

5. "WAVE THE FLAG."

Scoring: The child must pass three of the five subitems in this group to achieve a passing score. A pass score in this instance is represented by the child selecting the appropriate object and applying the correct action to it as indicated by the command. A fail score is indicated if the child does the following:

- 1. Selects incorrect object and carries out inappropriate action.
- 2. Selects incorrect object and carries out appropriate action.
- 3. Selects correct object and carries out inappropriate action.

Item 3: Understanding Words Indicating Space Relationships and Direction

Purpose: To determine whether the child has any understanding of words dealing with space relationships and direction.

Materials: Table, box, truck, cat and cup.

Procedure: Place the toy objects on the table in a row, from the child's left to right, in the above order. Give each of the commands in the order shown below. Allow child time to respond. If child does not respond readily, repeat each command once.

- 1. "PUT THE CAT (KITTY) IN THE BOX."
- 2. "PUT THE CAT (KITTY) ON TOP OF THE TABLE." or "PUT THE CAT (KITTY) ON TOP OF THE TOY TABLE."
- 4. "PUSH THE TRUCK BACKWARDS."
- 5. "TURN THE CUP UPSIDE DOWN."
- or "TURN THE CUP OVER."
- 3. "PUT THE CAT (KITTY) UNDER THE TABLE." or "PUT THE CAT (KITTY) UNDER THE TOY TABLE."

Scoring: The child must pass three of the five subitems in this group to achieve a passing score. A pass score is represented by the child selecting the appropriate object and putting it in the proper place. A fail score is indicated if the child does the following:

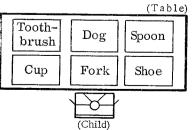
- 1. Selects incorrect object and carries out inappropriate action.
- 2. Selects incorrect object and carries out appropriate action.
- 3. Selects correct object and carries out inappropriate action.

SUBAREA: Alternate Comprehension

Purpose: This subarea is to be administered if the child fails two or all three items in the verbal comprehension subarea. In this subarea discontinue testing the child as soon as he passes any one of the four items given in the designated sequence. Please note that no changes will be necessary in the summary total score for the major area as a whole since the child has already been designated as "abnormal" based on his verbal comprehension score. Note that if the child fails the verbal comprehension subarea, you <u>must administer</u> the alternate comprehension subarea even though you comment that the child is a "verbal" child. The objective of the language reception area is not to determine the child's media of communication, but to evaluate his ability to associate signs and symbols leading to effective comprehension.

Materials Required for All Items: Fer-Will Object Kit, King Company, 2414 West Lawrence Ave., Chicago 25, Ill.

- 1. Composite picture card illustrating cup, fork, spoon, toothbrush, shoe and dog.
- 2. Corresponding objects.
- 3. Set of corresponding single pictures presented on table as shown at right:



Item 1: Word and Picture Identification

Purpose: To determine the comprehension of an auditory symbol referring to the corresponding visual symbol.

Materials: Composite picture card showing toothbrush, dog, spoon, cup, shoe and fork.

Procedures: Place the composite picture card on the table with the pictures facing the child. Say the word "CUP" with a rising inflection. If the child does not respond by pointing to the appropriate picture, say the word again in the same way and simultaneously make a sweeping, searching gesture over the pictures. Repeat the same procedure with each of the other pictures, following the order as shown on the scoring record. (If the child has a motor handicap involving the use of his hands or arms which prevents him from pointing, hold up two single pictures sufficiently apart to observe whether he looks at the one named. This procedure should be followed with all five pictures. Be sure to use different pairs of pictures chosen at random so that the child does not use a given picture as a clue.)

Scoring: Each subitem of this grouping is scored as pass or fail. Pass is defined as a definite identification of the picture named by pointing. Fail is defined as any response such as, for example, pointing to the wrong picture, repetition of the word, or no response in any way from the child. The child must pass all six subitems in this group to pass the item. If Item 1 is passed, discontinue the test.

Item 2: Word and Object Identification

Purpose: To determine the comprehension of a verbal symbol referring to the corresponding object.

Materials: Shoe, fork, cup, toothbrush, dog and spoon.

Procedure: Place the objects on the table in a row, following the order of presentation as shown above. Say the word "CUP" with a rising inflection. If the child does not respond by touching the cup or picking it up, say the word again in the same way and simultaneously pick up the object in order to demonstrate the desired response. Replace the cup in the same spot and repeat the word in the same way accompanied by a hand gesture without indicating the object, ("GIVE ME"). Repeat the request without demonstration with each of the other objects. (If the child has a motor handicap involving the use of his hands or arms which prevents him from pointing, hold up two objects sufficiently apart to observe whether he looks at the one named. Repeat the procedure with all five objects. Be sure to use different pairs of objects chosen at random so that the child does not use a given object as a clue.)

Scoring: Each subitem of this grouping is scored as pass or fail. Pass is defined as a definite identification of the object named by pointing, picking it up, touching it, or pantomiming its use. Fail is defined as a response other than the above; for example, pointing to the wrong object, repetition of the word, or no response. The child must pass all six subitems in the group to pass the item. If Item 2 is passed, discontinue the test.

Item 3: Pantomime and Object Identification

Purpose: To determine the comprehension of pantomime describing the use of object.

Materials: Toothbrush, spoon and cup.

Procedure: Place the objects on the table in a row, in the order shown above. Indicate through appropriate pantomime that you would like the child to identify the cup. For example, without picking up or touching the cup, pretend you are drinking from a cup and then look searchingly at the objects. The child should identify the object by pointing to it or by touching or picking it up. Repeat the procedure for the toothbrush and spoon. All the objects should always be replaced in the same order in front of the child even after he has identified one of them.

Scoring: Each subitem of the grouping is scored as pass or fail. Pass is defined as the ability to identify an object after its use is pantomimed by touching it or picking it up. Fail is defined as the incorrect identification of the object or as echoing the examiner's pantomime without picking the object up or touching it. The child must pass all three subitems in this group to pass the item. If Item 3 is passed, discontinue the test.

Item 4: Matching Object to Picture

Purpose: To determine the ability to associate an object with the corresponding visual representation.

Materials: Composite picture card showing shoe, cup, fork, spoon, dog and toothbrush. Corresponding objects.

Procedure: Place the composite picture card on the table facing the child. Demonstrate what is wanted by placing the *object shoe* on the *picture shoe*. Remove the *object shoe* from the *picture shoe*. This constitutes a practice trial and should not be scored. The object shoe is therefore not used again. In the order shown above under "Materials" proceed to hand the child each succeeding object (one at a time) and ask him by word or pantomime to place the object on the corresponding picture. Be careful not to indicate the exact spot on which the child is to place the object. The child gets only one trial for each object.

Scoring: Each subitem of this grouping is scored as pass or fail. Pass is defined as the ability to match the object with the picture correctly. Fail is defined as the incorrect matching of object to picture or no response in any way from the child. The child must pass five of the six subitems in this group to pass the item.

Summary Scoring Instructions for the Language Reception Area (For entry on the "Final Summary of Test Performance" on the scoring record.)

1. The following procedure is to be used in recording a summary total score for performance in this area in terms of "normal," "suspect," or "abnormal" evaluations:

Normal : Child passes all of the three verbal comprehension items.

- Suspect : Child passes any two out of the three verbal comprehension items.
- Abnormal : Child fails two or all of the three verbal comprehension items.
- 2. If the child receives a summary total score of "abnormal" for the language reception area (i.e., he fails two or all three verbal comprehension items), continue testing by administering the items in the alternate comprehension subarea. To repeat, please note that if the child is marked "normal" or "suspect" on the verbal comprehension subarea, it is not necessary to administer the alternate comprehension subarea.

AREA: Language Expression (PS-11)

SUBAREA: Verbal Expression

Purpose: To determine the ability of the child to communicate or express himself in words appropriate to his age level and to the materials presented to him.

Item 1: Naming Objects

Purpose: To determine whether the child can express himself verbally by giving the names to a series of objects that are presented to him.

Materials: Chair, scissors, dog, key and button.

Procedure: Present the objects one at a time. Have the child name each. Say, "WHAT IS THIS?" or "WHAT DO YOU CALL THIS?". Present in the following order:

- 1. Chair
- 2. Scissors
- 3. Dog
- 4. Key
- 5. Button

Item 1: Naming Objects (Continued)

Scoring: The child must name four out of the five objects to be credited with a passing score. The object must be named. Perfect articulation is not necessary but the word must be recognizable. Responses in terms of use or descriptions are considered to be failures, but plural for singular and familiar childish names are considered satisfactory. If the child is inattentive or remains silent throughout successive presentations of the subitems, he should be scored as failed and his action should be further described in the comments section of the scoring record.

Item 2: Use of Phrases or Sentences

Purpose: To determine the child's ability to use phrases and sentences.

Materials: Chair, scissors, dog, etc., and any other materials or objects which seem appropriate such as pictures, games, etc.

Procedure: There is no standard procedure for evoking a flow of conversation from the child. Following, however, are suggestions to stimulate the child to express himself, but do not necessarily have to be used. The examiner may utilize objects, pictures, questions, and any other means to elicit verbal expression. The examiner may have to evaluate the child's performance by eavesdropping on the child's conversation with his parent or during play. Record verbatim as many responses or spontaneous utterances as possible throughout the examination. At least three different phrases or sentences, including the longest one, must be recorded.

Picture: "WHAT IS HAPPENING IN THE PICTURE?" Question: "HOW DID YOU COME HERE TODAY?"

Scoring: The summary evaluation on the scoring record should be marked in accordance with the following instructions:

Pass: Any four of the five items on the checklist rated pass.

Fail: Anything below the requirement for pass.

Observations of deficiencies in language expression should not be limited to Item 2 solely, but should be noted, if possible, throughout the examination. The examiner must be sure that his judgments are based on an adequate sampling of the child's performance.

Definitions:

- 1. Sentence or Phrase Length
 - Pass: Four words or more Fail: Three words or less
- 2. <u>Sentence Structure</u>

Pass: Subject and predicate used correctly most of the time

Fail: Subject and predicate used incorrectly most of the time

3. Relevance

Pass: Response makes sense in relation to question or situation most of the time Fail: Response has doubtful meaning in relation to question or situation most of the time

4. Word Order

Pass: Correct grammatical sequence most of the time Fail: Transposition of words in a sentence most of the time

5. Pronouns

Pass: Uses pronouns correctly most of the time

Fail: Uses no pronouns or uses them incorrectly most of the time

SUBAREA: Alternate Expression (Single-Word and Pantomime)

Purpose: This subarea is to be administered if the child is rated as "abnormal" on the verbal expression subarea. (See page 12 for summary scoring instructions for the language expression area.) In this subarea, discontinue testing the child as soon as he passes any one item in the sequence shown below. Please note that no changes will be necessary in the summary total score for the major area as a whole since the child has already been designated as "abnormal" based on his verbal expression score.

Materials Required for All Items: Fer-Will Object Kit

- 1. Composite picture card illustrating cup, fork, spoon, toothbrush, shoe and dog.
- 2. Corresponding objects.
- 3. Sets of corresponding single pictures.

Item 1: Identification of Pictures Through Pantomime

Purpose: To determine the ability of the child to identify through pantomime (or by naming) the picture of a given object.

Materials: Composite picture card which includes cup, fork, shoe, spoon, dog and toothbrush. However, only toothbrush, cup and shoe are used for this item.

Procedure: Place the picture card on the table facing the child. If the child has any understanding of words, point to the picture of the toothbrush and say: "WHAT'S THIS?" The child should respond by trying to say "toothbrush" or by pantomiming the use of the object. Repeat the process for cup and shoe. (In the case of the shoe, the child may also point to his own.) If the child does not seem to understand spoken language, point to each picture questioningly as though to ask, "What's this?" and observe whether the child pantomimes use of the object.

Scoring: Each subitem is scored as pass or fail. Pass is defined as the ability to name or pantomime the use of the object depicted after the examiner says: "WHAT'S THIS?" or after the examiner points to a picture questioningly. Fail is defined as inappropriate pantomime, incorrect identification of the object, imitating the examiner's pointing, or no response in any way from the child. If Item 1 is passed, discontinue the test.

Item 2: Identification of Objects through Pantomime

Purpose: To determine the ability of the child to identify through pantomime (or by naming) a given object.

Materials: Toothbrush, cup and shoe.

Procedure: Place the objects on the table in a row facing the child. If the child has any understanding of words, point to the toothbrush and say: "WHAT'S THIS?" The child may respond by making a recognizable verbal attempt or by pantomiming the use of the object. Repeat the procedure for the cup and shoe. In the case of the shoe, the child may point to his own. If the child does not seem to understand spoken language, hold up each object in turn, ask: "WHAT'S THIS?" and at the same time look at it questioningly. Observe whether the child pantomimes its use or tries to name it.

Item 2: Identification of Objects Through Pantomime (Continued)

Scoring: Each subitem is scored as pass or fail. Pass is defined as making a recognizable attempt to name the object, the ability to pantomime the use of an object (or in the case of the shoe, pointing to his own) after the examiner says: "WHAT'S THIS?" or after the examiner holds up an object and looks at it questioningly. Fail is defined as inappropriate pantomime, incorrect identification of the object, echoing the movements of the examiner, or no response in any way from the child.

Summary Scoring Instructions for the Language Expression Area (For entry on the "Final Summary of Test Performance" on the scoring record.)

1. The following procedure is to be used in recording a summary total score for performance in this area in terms of "normal," "suspect," or "abnormal" evaluations:

Normal:Child passes Item 1 and passes Item 2 of the verbal expression subarea.Suspect:Child passes Item 1 and fails Item 2 of the verbal expression subarea.Child fails Item 1 and passes Item 2 of the verbal expression subarea.Abnormal :Child fails Item 1 and fails Item 2 of the verbal expression subarea.

2. If the child receives a summary total score of "abnormal" for the language expression area (i.e., he is rated as "abnormal" on the verbal expression subarea) continue testing by administering the items in the alternate expression subarea. Please note that if the child is marked "normal" or "suspect" on the verbal expression subarea, it is not necessary to administer the alternate expression subarea.

AREA: Hearing Tests (PS-13)

SUBAREA: Spondaic Word Test

Purpose: To determine whether the child can hear spondaic words at the soft level.

Materials: Wollensak tape recorder, taped spondaic words, loud-speaker with calibrating meter, sound level meter, test booklet with pictures of spondaic words, scoring record, and the chart of test sequences.

Procedure: The specific details involving the arrangement and calibration of equipment, ambient noise levels, etc., that are delineated in sections II and III at the beginning of the manual must be noted carefully.

The equipment has been calibrated, and with the meter setting on Hi, and the child on a chair facing the loud-speaker say to the child, "NOW I AM GOING TO TURN ON THE RADIO. YOU WILL HEAR A LADY TALKING. YOU LISTEN AND TELL ME WHAT SHE SAYS." Before the Lo setting words are played say to the child, "NOW THE LADY IS GOING TO WHISPER THE WORDS TO YOU. BE VERY QUIET, LISTEN AND TELL ME WHAT SHE SAYS."

Included in this section is a chart which delineates all possible sequences for presenting the spondaic word test, depending upon each child's responses. The majority of children will pass List I and thereby follow either of the first two possible sequences shown on the chart. A careful study of the chart should be made before the tester administers the spondaic word test routinely.

AREA: Hearing Tests (PS-13) (Continued)

Scoring:

Definition of Pass

List I, correct repetition of all three words

List II, III, IV, correct repetition of any five consecutive words or seven out of ten words

LIST V, correct pointing to all three pictures

LIST VI, VII, VIII, correct pointing to any five consecutive pictures or seven out of ten pictures

Definition of Fail

Anything less than the number of words or pictures required for pass.

Summary Score for the Spondaic Word Test Subarea:

Pass: Child passes either List III, IV, VII or VIII respectively. (Passes any one of the low-setting lists.) Fail: Child does not pass any of the low-setting lists.

EXPLANATION OF THE CHART OF TEST SEQUENCES - SPONDAIC WORD EXAM

In an effort to conserve time and maintain the child's interest, List I has only three words given at the Hi level. If all three are passes, experience has shown that one can expect the child to immediately proceed to the lists at the Lo level. The procedure for administering the spondaic word exam is contingent upon the child's passing or failing List I (Hi).

CHILD PASSES LIST I/

Omit List II (Hi), proceed to List III (Lo). If the child passes the latter, he passes the exam, STOP, go on to next subarea (pure tone exam). If the child fails List III (Lo), go on to List IV (Lo). If the child passes or fails List IV, STOP, go on to next subarea (pure tone exam).

CHILD ATTEMPTS LIST I AND FAILS

Proceed to List II (Hi). If the child passes List II, go on to List III (Lo). If he passes List III, STOP, go on to next subarea (pure tone exam). If the child fails List III, go on to List IV (Lo). If the child passes or fails List IV, STOP, go on to next subarea (pure tone exam). If the child fails List II (Hi), go on to List III (Lo). If the child passes List III, he passes the exam, STOP, go on to next subarea (pure tone exam). If the child fails List II (Hi) and fails List III (Lo), go on to List V (Hi). If he passes or fails List V, proceed to List VII (Lo). If he passes or fails List VII, STOP, go on to next subarea (pure tone exam).

CHILD DOES NOT ATTEMPT LIST I AND FAILS/

Proceed to List V (Hi). If the child passes List V, omit List VI (Hi), proceed to List VII (Lo). If the child passes the latter, he passes the exam, STOP, go on to next subarea (pure tone exam). If the child fails List VII, go on to List VIII (Lo). If the child passes or fails List VIII, STOP, go on to next subarea (pure tone exam).

If the child fails List V, go on to List VI (Hi). If the child passes List VI, go on to List VII (Lo). If he passes List VII, STOP, he passes the exam, go on to next subarea (pure tone exam). If the child fails List VII, go on to List VIII (Lo). If the child passes or fails List VIII, STOP, go on to next subarea (pure tone exam). If the child fails List VII, go on to next subarea (pure tone exam). If the child fails List V and fails List VI, go on to List VII (Lo). If he passes or fails List VII, STOP, go on to next subarea (pure tone exam). If the child fails List V and fails List VI, go on to List VII (Lo). If he passes or fails List VII, STOP, go on to next subarea (pure tone exam).

List I (HI)	List II (HI)	List III (LO)	List IV	(LO)	List V (HI)) List VI (HI)	List VII (LO	List VIII (LO)
Child Pas	ses List I/							
Passes—— Passes——		Passes (Stop) Fails	Passes or Fails	(Stop)				
	Child Attem	pts List I and	Fails /					
Fails Fails	Passes — — Passes — —	Passes (Stop) Fails — 🗩	Passes or	(Stop)				
Fails Fails	Fails — — — — — — — — — — — — — — — — — — —	Passes (Stop) Fails ————	Fails	-	Passes —		Passes (Stop) or	
Fails	Fails — 🗩	Fails———			Fails —		Fails Passes (Stop) or Fails	
					/ Child Doe	s Not Attempt	List I and Fail	s/
Fails Fails								Passes (Stop) or
Fails Fails					Fails Fails	– Passes – – – Passes – – –	Passes (Ston)	Fails Passes (Stop) or
Fails Fails					Fails — — — Fails — — —	– Fails–––– – Fails–––––	Passes (Stop)	Fails

CHART OF TEST SEQUENCES - SPONDAIC WORD EXAM

SUBAREA: Pure Tone Screening

Purpose: To determine whether the child can hear pure tones at 20 db in relation to "audiometer zero."

Materials: A pure tone screening audiometer with two headphones held by a headband. A diagnostic audiometer may be used if it is available. A room with appropriate sound conditioning as described in "general instructions" of the manual.

Procedure:

- a. Training and Warm-Up Period: The examiner may use any method which can obtain consistent responses to the sound stimulus. The following suggestions may be useful with particular children:
 - 1. The examiner may wish to wear the headphones first, indicating visibly that the sound is heard.
 - 2. Sometimes the child who rejects the wearing of the headband will accept one receiver held against one ear by the parent or the examiner. The receiver should be held snugly over the external meatus with care that arm and hand movements do not develop noises under the headphones.
 - 3. The examiner may wish to train the youngster to react to sound from the receivers while they are still on the table and before being placed on the head.
 - 4. One technique may begin with the examiner offering the stimulus at a comfortable loudness level (40 db). The examiner then says, "THE SOUND HAS GONE AWAY. TELL ME THE MINUTE IT COMES BACK." The stimulus is then offered at 20 db. The time interval between tones should be varied.
 - 5. Play audiometry techniques may be used where the sound serves to signal permission for some action by the child, e.g., dropping a block into a box, etc.
 - 6. Sounds of comfortable loudness often make learning the game easier to accomplish. Avoid using intensities above an indicated 70 db when the receiver is on the ear.

SUBAREA: Pure Tone Screening Test - (Continued)

- b. Test Period:
 - 1. Obtain reliable responses to tones presented at 20 db re.: audiometer zero in the following frequency sequence:

Right Ear: 2000, 1000, 500 Left Ear: 500, 1000, 2000

Observe the response to each frequency separately. The examiner should be satisfied that a reliable response has been obtained for each frequency.

Scoring: Child's response must meet conventional criterion of latency with the stimulus. The examiner must take into account the possible occurrence of "response" by the child in the absence of the stimulus.

Summary Score for Pure Tone Screening Test Subarea:

Pass: Child indicates he hears all three frequencies in the ear under test at 20 db.

Fail: Child fails to respond to one or more frequencies in the ear under test.

If the receiver had to be held by parent or examiner during the test period, record this fact under comments.

Summary Scoring Instructions for the Hearing Tests Area (For entry on the "Final Summary of Test Performance" on the scoring record.)

The following are the criteria for evaluating the child's hearing:

Normal:

- 1. Child passes both speech-hearing and pure tone tests.
- 2. Child passes speech-hearing test, refuses pure tone test, and passes all other areas of the examination.
- 3. Child passes pure tone test, refuses speech-hearing test, and passes all other areas of the examination.

Suspect:

- 1. Child fails either speech-hearing or pure tone test, but not both.
- 2. Child passes either speech-hearing test or pure tone test, but refuses the other test of hearing, and fails one or more of the other areas of the examination. Abnormal:

1. Child fails both speech-hearing test and pure tone test.

NOTE: If the child refuses to cooperate on the speech-hearing and pure tone tests, this is considered an inadequate test of the Hearing Area and will have to be given again during this administration of the Speech, Language and Hearing Examination or at a later date.

AREA: Speech Mechanism (PS-14)

SUBAREA: Examination of the Speech Mechanism

Purpose: To determine if deficiency is present in muscle functioning of articulators and if there are any structural abnormalities of the articulators. The examiner can use any order he desires within this area.

Materials Required for All Items: Flashlight (examination of the soft palate).

Item 1: Examination of the Lips

A. Retraction

Procedure: Demonstrate by retracting lips as for smiling and ask the child to imitate. Give two demonstrations if needed to make the instructions clear.

Scoring: Retraction is scored as "pass" or "other" with additional boxes for describing specific deficiencies or abnormalities which may be observed. "Pass" is defined as the ability to imitate the examiner. "Other" is provided to describe deficiencies or abnormalities not listed with the deficiencies already included in this section of the scoring record.

Item 1: Examination of the Speech Mechanism - (Continued)

B. Protrusion

Procedure: Demonstrate by puckering lips as for blowing and ask the child to imitate. Provide two or three demonstrations if necessary.

Scoring: Protrusion is scored as "pass" with additional boxes for describing specific deficiencies or abnormalities which may be observed. "Pass" is defined as the ability to imitate protrusion of the lips. "Other" is provided to describe deficiencies or abnormalities not listed with the deficiencies already included in this section of the scoring record.

Item 2: Examination of the Tongue

A. Mid-Line Protrusion

Procedure: Demonstrate by protruding the tongue. Provide two or three demonstrations.

Scoring: Protrusion is scored as "pass" or "other" with additional boxes for describing specific deficiencies or abnormalities which may be observed. "Pass" is defined as the ability to protrude tongue in imitation of the examiner. "Other" is provided to describe deficiencies or abnormalities not listed with the deficiencies already included in this section on the scoring record.

B. Lateral Protrusion

Procedure: Demonstrate by protruding tongue and moving it from one corner of the mouth to the other, outside the mouth. Provide two or three demonstrations if necessary.

Scoring: Lateral protrusion is scored as "pass" or "other," with additional boxes for describing specific deficiencies or abnormalities which may be observed. "Pass" is defined as the ability to protrude the tongue to the left and right. "Other" is provided to describe deficiencies or abnormalities not listed with the deficiencies already included in this section of the scoring record.

C. Elevation

 $\ensuremath{\text{Procedure:}}$ Demonstrate by elevating tongue to alveolar ridge. Provide two or three demonstrations if necessary.

Scoring: Elevation is scored as "pass" or "other," with additional boxes for describing specific deficiencies or abnormalities which may be observed. "Pass" is defined as the ability to elevate tongue to alveolar ridge in imitation of the examiner. "Other" is provided to describe deficiencies or abnormalities not listed with those already included in this section.

Item 3: Examination of the Soft Palate

A. Elevation

Procedure: Ask the child to open his mouth and say "ah" a sufficient number of times for you to make adequate observations of his palatal elevation.

Scoring: This item is scored as "pass" or "other" with additional boxes for describing specific deficiencies or abnormalities which may be observed. "Pass" is defined as the ability of the child to elevate the soft palate. "Other" is provided to describe deficiencies or abnormalities not listed with those already included in this section.

Item 4: Diadochokinesis

A. Lips

Procedure: The purpose of this section is to observe the child's ability to perform sustained, rapid movements of the lips. Demonstrate by repeating "buh" for one second at the rate of 6 to 7 "buhs" per second. Provide two or three demonstrations if necessary.

Scoring: This item is scored as "pass" or "other" with an additional box for describing a specific deficiency which may be observed. "Pass" is defined as the ability of the child to repeat "buh" clearly at least three or four times within a one-second period. "Other" is provided to describe deficiencies or abnormalities not listed with those already included in the section.

Item 4: Diadochokinesis – (Continued)

B. Tongue

Procedure: Demonstrate by repeating "tuh" for one second at the rate of 6 to 7 "tuhs" per second. Provide two or three demonstrations if necessary.

Scoring: This item is scored as "pass" or "other" with an additional box for describing a specific deficiency which may be observed. "Pass" is defined as the ability of the child to repeat "tuh" at least three or four times within a one-second period. "Other" is provided to describe a deficiency not listed with those already included in the section.

Summary Scoring Instructions for the Speech Mechanism Area (For entry on the "Final Summary of Test Performance" on the scoring record.)

The following are the criteria for evaluating the child's speech mechanism:

Normal : Passes all items or fails only one specific item.
Suspect : Fails two or more specific subitems in different item categories and passes all others.

Abnormal : Fails three or more specific subitems in three or more item categories.

Note: These failures are determined on the basis of the whole test, rather than the number of failures within each item. So, for a child to be rated "suspect" for example, he would have to fail any subitem in each of two major items such as "lips" and "tongue," or "tongue" and "soft palate," etc.

AREA: Speech Production (PS-15)

SUBAREA: Voice

Purpose: To determine if there are significant deviations in pitch, loudness and quality.

Materials: None

Procedure: No specific procedures are used. Certain observations must be made during the examination. Special deficiencies applicable to each of the vocal characteristics are given on the scoring record. Boxes are provided for the examiner to check. "Adequate" means that there is nothing unusual noted concerning the voice. "Other" is provided to describe characteristics other than those included in the section.

Scoring: The following procedure is to be used in scoring this subarea:

- Normal : No impairments checked in pitch, loudness or quality items.
- Suspect : Impairment(s) checked in pitch, loudness or quality respectively.
- Abnormal : Impairments checked in pitch and loudness, pitch and quality, loudness and quality, or all three items.

SUBAREA: Articulation

Purpose: To measure the child's articulation as evidenced by his ability to repeat individual words after these words are spoken by the examiner. Vowels, diphthongs, and single consonants which appear in initial and final positions in English are evaluated.

Materials: Wordlist.

Procedure: Say to the child: "I AM GOING TO SAY SOME WORDS AND I WANT YOU TO SAY THEM RIGHT AFTER ME."

SUBAREA: Articulation - (Continued)

Scoring: All 60 underlined sounds in the 34 test words are to be evaluated. If it is necessary to elicit a verbal response from a child a second time (because of not being able to hear the child, extreme uncertainty as to whether or not the sound was correctly or incorrectly articulated, etc.) base the judgment of the adequacy of articulation on the second verbalization alone. If there is any question as to whether the sound was correctly articulated, count it wrong. Each underlined sound on the scoring record is evaluated according to the following code:

- 1. + = Correct articulation
- 2. = Incorrect articulation
- 3. O = Omission
- 4. NR = No response

A sound is judged "incorrect" whenever any sound other than the test sound is substituted. It is judged "omission" if no sound is substituted. "No response" indicates that the test word was not elicited from the child. If upon administering the articulation subarea test the child, although responding to the first few words on the test, balks or refuses to continue or does not respond at all, the examiner should take careful note of the child's speech in connected discourse, as observed throughout the examination (particularly in the verbal expression subarea) and may evaluate him as "normal" on the articulation subarea if few or no articulatory deficiencies have been noted.

However, if articulation is checked as a remark to the intelligibility subarea rating of 2, 3, 4, or 5, then the examiner may, depending upon his judgment, mark the articulation subarea as "suspect" or "abnormal," if he has been unable to administer the articulation list.

1. Initial consonants

Normal	:	15 or above
Suspect	:	11 - 14
Abnormal	:	10 or less

2. Final consonants

: 11 or above Normal : 6 - 10 Suspect Abnormal : 5 or less

3. Vowels and diphthongs

Normal	:	14 or above
Suspect	:	10 - 13
Abnormal	:	9 or less

4. All tested sounds

All three categories normal, or, two normal and one suspect category. Normal • Suspect or abnormal on any one and suspect on at least one other of the remaining cate-Suspect gories, or normal on any two categories and abnormal on the remaining category. Abnormal on two or more categories. Abnormal :

SUBAREA: Intelligibility of Speech

Purpose: To evaluate the intelligibility of the connected speech of the child. The evaluation should be based on his complete performance on the examination as well as the examiner's observations in general conversation with the child.

Materials: Checklist with associated definitions.

Procedure: Observation.

SUBAREA: Intelligibility of Speech — (Continued)

Scoring: The highest level of intelligibility of connected speech manifested by the child should be entered in the checklist.

How well can you understand this child:

No difficulty in understanding what he says regardless of any deviations which may or may not be present in articulation, voice quality, pitch, rhythm, etc. However, such deviations must be listed in the comments column.

^J Some difficulty in understanding what the child says.

Considerable difficulty in understanding what the child says.

The child has verbalized but is unintelligible.

_ No speech.

- Other.

If 2, 3, 4 or 5 are checked, indicate the types of deviation you observed in detail. The ratings 3, 4 or 5 are considered impairments in intelligibility and should be recorded as "abnormal" on the scoring record. A rating of 2 should be recorded as "suspect" on the scoring record. If there are impairments noted regarding the intelligibility of speech, the following list may assist you in making your comments:

Impairments In:

- 1. Rhythm
- 2. Rate
- 3. Loudness
- 4. Pitch
- 5. Quality
- 6. Stress
- 7. Articulation

SUBAREA: Fluency of Speech Production

Purpose: To determine whether the child exhibits dysfluencies (for example, repetitions, prolongation, hesitation, insertion, arrest, etc.) in his speech and whether some struggle or special effort to produce speech accompanies these events.

Materials: Checklist.

Procedure: Observations are made throughout the test. The examiner's attention is called to the opportunity to evaluate this subarea while administering the verbal expression items.

Scoring: The following criteria should be applied for this subarea:

- Normal: 1. If "none" is checked for dysfluent events and struggle behavior.
 - If "some observed" is checked for dysfluent events but "none" is checked for struggle behavior.
 If "some observed" is checked for both dysfluent events and struggle behavior.

Suspect:

- 2. If "none" is checked for dysfluent events but "some observed" is checked for struggle behavior.
 - 3. If "many observed" is checked for dysfluent events, and "none observed" is checked for struggle behavior.
- 4. If "none observed" is checked for dysfluent events and "many observed" is checked for struggle behavior.
- Abnormal: 1. If "many observed" is checked for both dysfluent events and struggle behavior.
 - 2. If "many observed" is checked for dysfluent events and "some observed" is checked for struggle behavior.
 - 3. If "some observed" is checked for dysfluent events and "many observed" is checked for struggle behavior.

SUBAREA: Fluency - (Continued)

Summary Scoring Instructions for the Speech Production Area (For entry in the "Final Summary of Test Performance" on the scoring record.)

The following are the criteria for evaluating the child's performance in the speech production area:

Normal:

- 1. Normal ratings on all subareas.
- 2. Suspect rating on voice subarea alone or suspect rating on articulation subarea alone or suspect rating on fluency of speech production subarea alone with normal ratings on all other areas.

Suspect:

- 1. Suspect rating on intelligibility subarea alone.
- 2. Suspect ratings on voice and articulation subareas together.
- 3. Suspect ratings on voice and fluency subareas together, or fluency and articulation subareas together.
- 4. Abnormal rating on voice subarea alone.
- 5. Abnormal rating on articulation subarea alone.

Abnormal:

- 1. Abnormal rating on intelligibility subarea alone.
- 2. Abnormal rating on fluency subarea alone.
- 3. Abnormal ratings on any other two subareas.

AREA: Auditory Memory for Digits and Nonsense Syllables (PS-12)

SUBAREA: Recall of Digits

Purpose: Although auditory memory has been designated as a major area of this examination, it has not been included as a category in the "Final Summary of Test Performance." The examiner is required to administer this test area to every child, regardless of performance on other major areas of the test battery.

Item 1: Two-Digit Series

Purpose: To measure span of auditory memory and the ability to remember the details of auditory stimuli in sequence.

Materials: List of digits, scoring form, stop watch.

Procedure: There are four series of digits. Whenever the child has repeated one series in correct order, proceed to the three-digit series. Pronounce the digits distinctly and with uniform emphasis at the rate of one per second. Each series is to be given only once. Do not repeat any series for the child. Say to the child: "LISTEN; SAY 3-1. NOW, SAY 4-2." etc.

1. "4 - 2." 2. "8 - 5." 3. "6 - 1." 4. "3 - 8."

Scoring: The following definitions of the terms used in the scoring procedure applies to both the two-digit and three-digit series:

1. Pass: Child repeats one set of digits correctly and in given sequence. (See scoring record.)

2. Fail: Child does not repeat any of the sets of digits correctly or in given sequence.

The important point in scoring a response is whether the digits are recognized and repeated in correct sequence. The emphasis is not upon correct articulation but upon recognizable recall in sequence. Therefore, if the child, for example, should say "foh-foo" or "oh-oo" instead of "4 - 2" this is to be scored as a correct response. If the child should repeat the same number of sound units as the series presented but you cannot recognize the numbers, score as a failing response. Although it is not necessary to record verbatim responses to items that are passed in this area, it is important that the examiner record all verbatim responses to items that are failed.

Item 2: Three-Digit Series

Purpose: To measure span of auditory memory and the ability to remember the details of auditory stimuli in sequence.

Materials: List of three-digit series, scoring form, stop watch.

Procedure: There are four series of digits. Pronounce the digits distinctly and with uniform emphasis at the rate of one per second. Each series is to be given only once. Do not repeat any series for the child. Whenever the child has repeated one series in correct order, proceed to the subarea recall of nonsense syllables.

1. "3 - 6 - 2." 2. "8 - 3 - 1." 3. "6 - 2 - 8." 4. "2 - 4 - 1."

Scoring: The following definitions of the terms used in the scoring procedure apply to both the two-digit and three-digit series.

1. Pass: Child repeats one set of digits correctly and in given sequence.

2. Fail: Child does not repeat any of the sets of digits correctly or in given sequence.

The important point in scoring a response is whether the digits are recognized and repeated in correct sequence. The emphasis is not upon correct articulation but upon recognizable recall in sequence. Therefore, if the child, for example, should say "fee-fih-oo" or "ee-ih-oo" instead of "3 - 6 - 2," this is to be scored as a correct response. If he should repeat the same number of sound units as the series presented, but you can not understand him, score as failing response. Record verbatim child's response on scoring form. Place check mark in the appropriate column.

SUBAREA: Recall of Nonsense Syllables

Item 1: Two-Syllable Series

Materials: List of nonsense syllables, scoring form, stop watch.

Procedure: There are four series of paired nonsense syllables. Pronounce the syllables distinctly and with uniform emphasis at the rate of one per second. Each series is to be given only once. Do not repeat any series for the child. Say to the child: "LISTEN AGAIN AND SAY WHAT I SAY."

1. "POO-BAH."

- 2. "DEE-BOO."
- 3. "MOW-DAH."
- 4. ''TAH-DOY.''

Scoring: The following definitions of the terms in the scoring procedures apply both to the two-series and the three-series nonsense syllables.

1. Pass: Child repeats one set of nonsense syllables correctly and in given sequence.

2. Fail: Child does not repeat any of the sets of nonsense syllables or in given sequence.

The important point in scoring a response is whether the nonsense syllables are recognizable and repeated in correct sequence. The emphasis is not upon correct articulation but on correct recall in sequence. The child may omit the consonants but if the vowel is recognizable, this is to be scored as a correct response. Therefore, if the child, for example, should say ''oo-ah'' for ''boo-bah'' this is a correct response. Record verbatim the child's response on scoring form. Place a check mark in appropriate column.

Item 2: Three-Syllable Series

Materials: List of three-syllable series, scoring form, stop watch.

Procedure: There are four series of nonsense syllables. Pronounce the syllables distinctly and with uniform emphasis at the rate of one per second. Each series is to be given only once. Do not repeat any series for the child. Say to the child: "NOW LISTEN AGAIN AND SAY WHAT I SAY." Whenever the child has repeated one series in correct order, discontinue testing.

- 1. "PAH-BOO-DEE."
- 2. "MOW-DAH-POO."
- 3. "TAH-BOW-DOY."
- 4. "DEE-GAH-TAY."

Scoring: The following definitions of the terms used in the scoring procedure apply both to the two-series and the three-series nonsense syllables.

- 1. Pass: Child repeats one set of nonsense syllables correctly and in given sequence.
- 2. Fail: Child does not repeat any of the sets of nonsense syllables correctly or in given sequence.

The important point in scoring a response is whether the nonsense syllables are recognizable and repeated in correct sequence. The emphasis is not upon correct articulation but on correct recall in sequence. The child may omit the consonants but if the vowel is recognizable, this is to be scored as a correct response. Therefore, if the child, for example, should say "ah-oo-ee" for "pah-boo-dee" this is a correct response. Record verbatim child's response on scoring form. Place a check mark in appropriate column.